

Claim 1 has been amended. It is respectfully submitted that claims 1-12 are patentably distinct from Bashir et al. alone or in combination with other references.

Claim 1 is directed to a method of fabricating a microelectromechanical system. The method includes providing a substrate having a device layer. A first trench is etched in the device layer. The first trench surrounds a first region of the substrate. A dielectric isolation layer is formed in the trench to electrically isolate the first region from a second region of the substrate. A second trench is etched in the device layer. The second trench is located in the first region and defines a microstructure. The first trench electrically isolates elements of the microstructure from each other.

As shown in Figs. 2 and 16A of Applicants' specification, for example, isolation trench 18 is lined with an isolation layer 64 or, alternatively, filled with an isolation layer. Thus, in this manner, the isolation layer electrically isolates the first region of the substrate from the second region of the substrate. Additionally, isolation trench 18 electrically isolates the microstructure elements in the first region from each other. For example, because they project from different portions of the isolation trench, stationary electrodes 30a are electrically isolated from stationary electrodes 30b and from proof mass 24.

Bashir et al. does not disclose the claimed method. Rather, in Bashir et al., the sidewalls of an anchor trench 121 are oxidized to produce a 500 to 3,000 angstrom thick oxide layer on the sidewalls and bottom of the trench. However, the trench 121 is then subjected to an RIE etch process to remove the portion of the oxide layer on the bottom of the trench. This is done so that the polysilicon which will be grown in the trenches in a later step can directly contact the substrate 102. Col. 5, lines 26-29. In another step, the polysilicon 122 filling the trenches 120 on each side of the central silicon region is removed, and the buried oxide layer is etched to define movable electrode 142 and fixed electrode 144 (see col. 6, lns. 45-48; col. 6, ln. 59 to col. 7, ln. 5).

The resultant structure, as shown in Fig. 10 of Bashir, provides that elements 142 and 144 are actually one in the same element. (The same unbroken polygon with the same shading.) Thus, these elements are electrically connected to each other.

As noted in Applicants' specification, the isolation trench of Applicants' invention performs several functions. One function is to electrically isolate the microstructure elements in

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structure region 14 from each other. See Applicants' specification, page 9, lines 16-31. This function is not achieved by Bashir.

In view of the foregoing, it is submitted that all the claims are now in condition for allowance. Accordingly, allowance of the claims at the earliest possible date is requested.

Attached is a marked-up version of the changes being made by the current amendment. The attached page is captioned: "Version with markings to show changes made."

In view of the foregoing, it is submitted that all the claims are now in condition for allowance. Accordingly, allowance of the claims at the earliest possible date is requested.

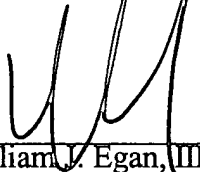
If prosecution of this application can be assisted by telephone, the Examiner is requested to call Applicant's undersigned attorney at (925) 906-1302.

Please apply any charges or credits to Deposit Account No. 06-1050.

Date: _____

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Respectfully submitted,



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Version with Markings to Show Changes Made

In the claims:

Claim 1 has been amended as follows:

1. (Twice amended) A method of fabricating a microelectromechanical system, comprising:
 - providing a substrate having a device layer;
 - etching a first trench in the device layer, the first trench surrounding a first region of the substrate;
 - depositing a dielectric isolation layer in the first trench to electrically isolate the first region from a second region of the substrate; and
 - etching a second trench in the device layer, the second trench located in the first region and defining a microstructure, and the first trench electrically isolating elements of the microstructure from each other.